

**PRACTICE TEST 3 - CHAPTER 4**Beginning and Intermediate Algebra by Messersmith, 4<sup>th</sup> edition

1. Determine if the ordered pair  $(1, -1)$  is a solution of the equation.  $4x + 3y = 1$
2. Determine if the ordered pair  $(2, -4)$  is a solution of the equation.  $4x + 6y = 2$
3. Complete the ordered pair  $(4, \_)$  for the equation.  $y = 8x + 5$
4. Complete the table of values for the equation.  $y = -8x - 8$

<b>x</b>	<b>y</b>
-5	
0	
1	
2	

5. Complete the table of values for the equation and plot the points.  $y = -4x + 8$

<b>x</b>	<b>y</b>
0	
	0
	-4
4	

6. Complete the table of values for the equation and plot the points.  $2x - 5y = -10$

<b>x</b>	<b>y</b>
0	
	0
5	

7. Complete the table of values and graph the equation.  $y = -2x - 3$

<b>x</b>	<b>y</b>
-1	
0	
1	
2	

8. Complete the table of values and graph the equation.  $y = -\frac{1}{5}x - 4$

<b>x</b>	<b>y</b>
-5	
0	
5	
10	

9. Complete the table of values and graph the equation.  $-x + 2y = -2$

<b>x</b>	<b>y</b>
0	
	0
	2
7	

10. Complete the table of values and graph the equation.  $y = -4x + 3$

<b>x</b>	<b>y</b>
-1	
0	
1	
2	

11. Complete the table of values and graph the equation.  $y = -5$

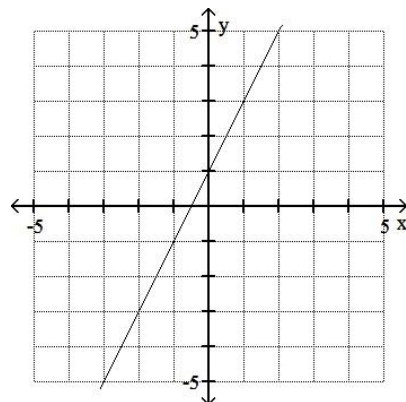
<b>x</b>	<b>y</b>
-5	
0	
3	
7	

12. Complete the table of values and graph the equation.  $x = 2$

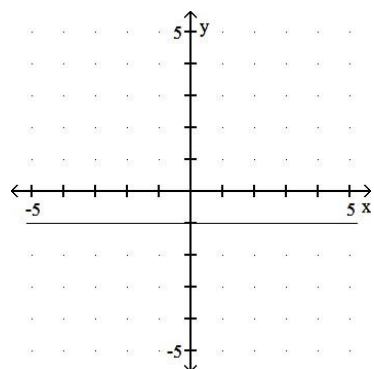
<b>x</b>	<b>y</b>
	-5
	0
	3
	7

**PRACTICE TEST 3 - CHAPTER 4**Beginning and Intermediate Algebra by Messersmith, 4<sup>th</sup> edition**Determine the slope by using the slope formula and any two points on the line.**

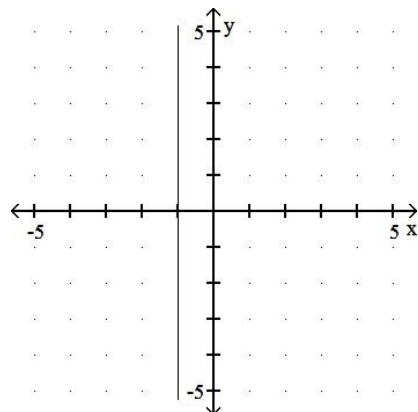
13.



14.



15.

**Find the slope of the line that passes through the given points.**

16.  $(4,1)$  and  $(15,8)$

17.  $(3,-3)$  and  $(5,-9)$

18.  $(-10,4)$  and  $(-10,9)$

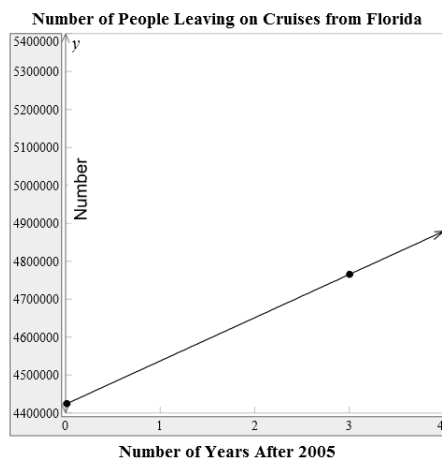
19. The following equation is given in slope-intercept form. Identify the slope and the y-intercept, then graph using this

information.  $y = -\frac{1}{6}x + 1$

20. The following equation is given in slope-intercept form. Identify the slope and the y-intercept, then graph using this information.  $y = 3$ 21. Put the equation into slope-intercept form, if possible, and graph.  $x + 4y = -8$

22. The number of people,  $y$ , leaving in cruises from Florida from 2005 to 2009 can be approximated by

$y = 114,000x + 4,421,600$ ; where  $x$  is the number of years after 2005.



- What is the y-intercept? What does it mean in the context of the problem?
- What is the slope? What does it mean in the context of the problem?
- Use the graph to determine how many people left on cruises from Florida in 2008. Confirm your answer using the equation.

23. Write the slope-intercept form for the equation of a line with  $m = -4$  and y-intercept  $(0,4)$ .

24. Determine whether the following lines are parallel, perpendicular or neither.

$$y = 2x + 3$$

$$-2x + y = -7$$

25. Find the equation of the line containing the point  $(5, -2)$  and with slope

$m = \frac{5}{6}$ . Express your answer in standard form.

26. Find the equation of the line containing the points  $(-2, 6)$  and  $(9, 15)$ . Express your answer in standard form.

27. Write the equation of the vertical line containing  $(-54, 7)$ , if possible.

28. Write the slope-intercept form of the horizontal line containing  $(-27, 53)$ , if possible.

29. Write an equation of the line parallel to the line  $5x + 3y = 2$  and containing the point  $(-5, 5)$ . Write the answer in standard form.

30. Write an equation of the line perpendicular to the line  $x - 4y = 18$  and containing the point  $(11, 28)$ . Write the answer in standard form.

# MATH0361 Practice Test 3 Answers:

1) YES

2) NO

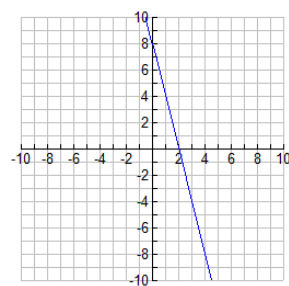
3) (4,37)

4)

x	y
-5	32
0	-8
1	-16
2	-24

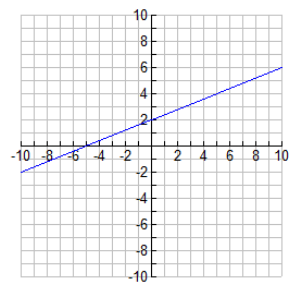
5)

x	y
0	8
2	0
3	-4
4	-8



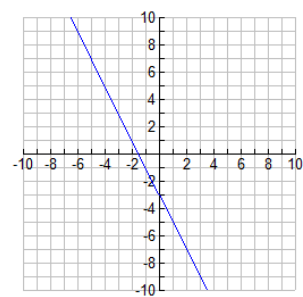
6)

x	y
0	2
-5	0
5	4



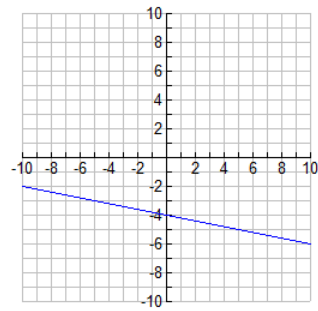
7)

x	y
-1	-1
0	-3
1	-5
2	-7



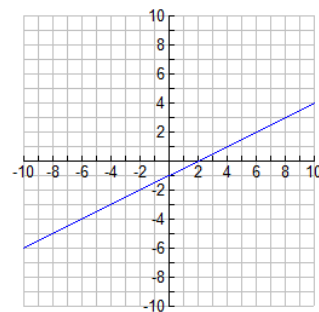
8)

x	y
-5	-3
0	-4
5	-5
10	-6



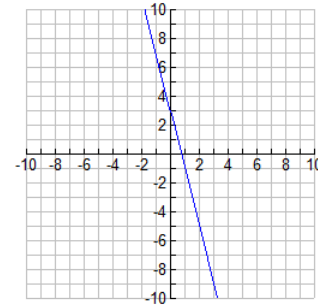
9)

x	y
0	-1
2	0
6	2
7	$\frac{5}{2}$



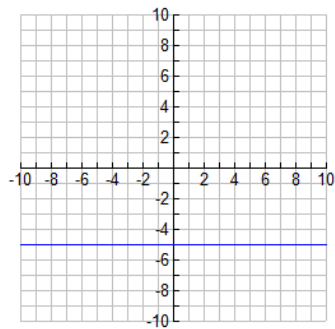
10)

x	y
-1	7
0	3
1	-1
2	-5



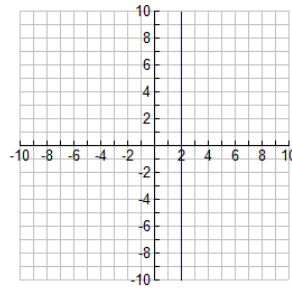
11)

x	y
-5	-5
0	-5
3	-5
7	-5



12)

x	y
2	-5
2	0
2	3
2	7



13)  $m = 2$

14)  $m = 0$

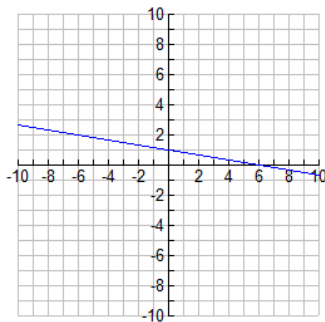
15)  $m = \text{undefined}$

16)  $m = \frac{7}{11}$

17)  $m = -3$

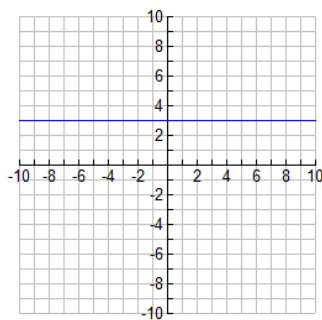
18)  $m = \text{undefined}$

19)  $m = -\frac{1}{6}$  y-intercept: (0,1) Graph:



20)  $m = 0$  y-intercept: (0,3) Graph:

21)



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22) a) The y-intercept is (0,4,421,600). In the year 2005, 4,421,600 people left on cruises from Florida.

b) The slope is 114,000. The number of people leaving on cruises from Florida 114,000 per year.

c) 4,763,600. When  $x = 3$ ;  $y = 4,763,600$ .

23)  $y = -4x + 4$

24) Parallel

25)  $5x - 6y = 37$

26)  $9x - 11y = -84$

27)  $x = -54$

28)  $y = 53$

29)  $5x + 3y = -10$

30)  $4x + y = 72$